

REVISION OF THE AUSTRALIAN PSYCHIDAE (LEPIDOPTERA).

By A. JEFFERIS TURNER, M.D., F.R.E.S.

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This small family is in some respects the most specialised of the Lepidoptera; but it also presents many primitive characters. The larvae dwell in silken cases often with twigs or leaves attached. In these they pupate. The adult female is without wings, feet, and mouth-parts, and never leaves its case, in which the eggs are deposited. In the male the head is rough-haired, the tongue is absent, the palpi very short and hairy, the wings usually thin-scaled and often mostly hyaline. The neuration is primitive, with a median vein (usually stalked) in the cell, and with second cubital and two anal veins in both wings; but there may be added various anastomoses, and also veinlets or pseudoneuria may be developed. The second cubital usually runs into the combined anal veins in the forewings, but may be undeveloped except near its base. The second median in the forewings arises below the middle of the cell. The first radial may be present in the hindwings. The anterior tibiae often have a long ventral spine.

KEY TO GENERA.

1. Anterior tarsi with basal joint not elongate	2	
Anterior tarsi with basal joint one-half	5	
2. Forewings with 9 absent	3	
Forewings with 9 present	4	
3. Hindwings with 4 and 5 stalked or coincident		<i>Elinostola</i>
Hindwings with 5 separate		<i>Hyaloptila</i>
4. Hindwings with 5 absent		<i>Hylarcta</i>
Hindwings with 5 present		<i>Paracharactis</i>
5. Hindwings with 4 and 5 anastomosing		<i>Clania</i>
Hindwings with 4 and 5 not anastomosing	6	
6. Antennae simple towards apex		<i>Oeceticus</i>
Antennae pectinate to apex	7	
7. Hindwings with 5 absent		<i>Phasmylea</i>
Hindwings with 5 present	8	
8. Both wings with median forked		<i>Bathromelas</i>
Both wings with median not forked		<i>Plutorectis</i>

1. Gen. ELINOSTOLA Meyr. & Low.

Tr. R.S.S.A. 1907, p. 193.

Antennae bipectinate to apex. Forewings with Cu_2 running into combined anal vein, 4 and 5 stalked, 7 and 8 stalked, 9 absent; median forked in cell. Hindwings with 4 and 5 stalked or coincident, 6 absent; median in cell not forked. Type: *E. hypomela*.

1. *ELINOSTOLA HYALINA* n.sp.

ύαλινος, glassy.

22 mm. Head fuscous; face and palpi whitish. Thorax, abdomen and legs dark fuscous. Forewings elongate, costa moderately arched, apex round-pointed, termen rounded, oblique; transparent; costal edge narrowly fuscous. Hindwings with apex rounded, termen straight; transparent; costal edge and cilia fuscous.

NORTH AUSTRALIA: Darwin (F. P. Dodd); one specimen.

I have not seen any other species of this genus.

2. *ELINOSTOLA AGRIODES* Meyr.

Exot. Micro. ii, p. 472.

QUEENSLAND: Brisbane.

3. *ELINOSTOLA PANAGRIA* Meyr.

Exot. Micro. ii, p. 473.

QUEENSLAND: Brisbane.

4. *ELINOSTOLA HYPOMELA* Meyr. & Low.

Tr. R.S.S.A. 1907, p. 193.

QUEENSLAND: Brisbane.

2. Gen. *HYALOPTILA* nov.

ύαλοππιλος, glassy-winged.

Antennae pectinate to apex. Anterior tarsi with basal joint not elongate. Forewings with 4 and 5 stalked, 7 and 8 stalked, 9 separate, 10 and 11 absent; median vein in cell not forked. Hindwings with cell long; all veins present and separate; median vein in cell not forked.

5. *HYALOPTILA MELANOSOMA* n.sp.

μελανοσωμος, black-bodied.

28 mm. Head, thorax, and abdomen dark fuscous. Antennae dark fuscous; pectinations 10. Legs fuscous. Forewings with costa straight to middle, thence arched, apex rounded, termen straight, oblique; wholly transparent; cilia fuscous. Hindwings with termen rounded; transparent; some fuscous hairs in dorsal area; cilia fuscous.

NORTH QUEENSLAND: Cape York in October (W. B. Barnard). Type in Queensland Museum.

3. Gen. *HYALARCTA* Meyr. & Low.

Tr. R.S.S.A. 1907, p. 193.

Antennae pectinate to apex. Anterior tarsi with basal joint not elongate. Forewings with Cu_2 running into combined anal vein, 5 absent, 7 stalked with 8, 9, and 10 sometimes stalked; median vein in cell not stalked. Hindwings with 5 absent, 6 and 7 approximated or coincident; median vein in cell not forked. Type: *H. nigrescens*.

6. *HYALARCTA NIGRESCENS* Dbld.

Thyridopteryx nigrescens Dbld. Eyre's Exped. i, p. 437; Meyr. and Low. Tr. R.S.S.A. 1907, p. 194.

Oiketicus herrichii Westw. P.Z.S. Lond. 1854, p. 232; Macalister Proc. Nat. Hist. Soc. Dublin 1869, p. 130; Wlk. iv, p. 950.

Hyalarcta ptiloclada Meyr. and Low. Tr. R.S.S.A. 1907, p. 195.

I have examined the type of *H. ptiloclada*.

QUEENSLAND: Toowoomba, Cunnamulla. NEW SOUTH WALES: Lismore. VICTORIA: Gisborne, Narnargoon, Kewell. SOUTH AUSTRALIA: Adelaide.

7. *HYALARCTA HUEBNERI* Westw.

Oiketicus huebneri Westw. P.Z.S. 1854, p. 288; Meyr. and Low. Tr. R.S.S.A. 1907, p. 195.

Oiketicus careyi Macalister. Proc. Nat. Hist. Soc. Dublin 1867, p. 133.

QUEENSLAND: Brisbane, Toowoomba, Stanthorpe. NEW SOUTH WALES: Sydney. VICTORIA: Gisborne, Melbourne, Beaconsfield. SOUTH AUSTRALIA: Adelaide. WEST AUSTRALIA: Perth.

4. Gen. *PARACHARACTIS* Meyr. & Low.

Tr. R.S.S.A. 1907, p. 205.

Antennae pectinate to apex. Anterior tarsi with basal joint not elongate. Forewings with 4 and 5 stalked, 7 and 8 stalked, 10 sometimes stalked with them. Hindwings with 4 and 5 connate. Type: *P. cautopsis*.

I do not know any species of this genus, which should be distinguished from *Plutorectis* by the basal joint of the anterior tibiae not being elongate.

8. *PARACHARACTIS LEWINII* Heyl.

Ann. Soc. Ent. Belg. xxix, p. 148; Meyr. & Low. Tr. R.S.S.A. 1907, p. 205.

NEW SOUTH WALES: Broken Hill.

9. *PARACHARACTIS CAUTOPSIS* Meyr. & Low.

Tr. R.S.S.A. 1907, p. 205.

NEW SOUTH WALES: Newcastle.

10. *PARACHARACTIS ERIONOTA* Low.

Tr. R.S.S.A. 1901, p. 63; Meyr. & Low. Tr. R.S.S.A. 1907, p. 206.

NEW SOUTH WALES: Broken Hill.

11. *PARACHARACTIS DELOCEPHALA* Meyr. & Low.

Tr. R.S.S.A. 1907, p. 206.

NEW SOUTH WALES: Sydney.

5. Gen. CLANIA Wlk.

iv, p. 963.

Antennae pectinate to apex. Anterior tarsi with basal joint elongate (one-half). Forewings with Cu_2 running into combined anal vein, 4 and 5 stalked, 7 connate with 8, 9, which are stalked. Hindwings with 4 and 5 stalked, 7 and 8 usually anastomosing before apex. Median vein forked in cell in both wings. Type: *C. lewinii* Westw.

12. CLANIA DEWITZI Heyl.

Ann. Soc. Ent. Belg. 1886, p. 119; Meyr. & Low. Tr. R.S.S.A. 1907, p. 196.

NEW SOUTH WALES: Sydney. TASMANIA: Launceston. SOUTH AUSTRALIA: Pinnaroo.

13. CLANIA TENUIS Rosen.

Ann. Mag. Nat. Hist. (5) xiv, p. 422; Meyr. & Low. Tr. R.S.S.A. 1907, p. 197.

NEW SOUTH WALES: Sydney. VICTORIA: Gisborne, Melbourne, Geelong, Beaconsfield, Stawell. TASMANIA: Launceston. SOUTH AUSTRALIA: Mt. Lofty, Pt. Lincoln.

14. CLANIA IGNOBILIS Wlk.

Char. Undesc. Lep. p. 67; Meyr & Low. Tr. R.S.S.A. 1907, p. 197.

NORTH QUEENSLAND: Cairns, Mt. Isa. QUEENSLAND: Brisbane, Toowoomba, Dalby. NEW SOUTH WALES: Murrurundi, Seone, Sydney. VICTORIA: Gisborne, Melbourne, Warburton. TASMANIA: Triabunna. SOUTH AUSTRALIA: Adelaide, Mt. Lofty. WEST AUSTRALIA: Perth.

15. CLANIA LEWINII Westw.

P.Z.S. 1854, p. 231; Meyr. & Low. Tr. R.S.S.A. 1907, p. 198.

NEW SOUTH WALES: Katoomba. VICTORIA: Melbourne, Gippsland. SOUTH AUSTRALIA: Mt. Lofty.

16. CLANIA PHOTIDIAS Meyr. & Low.

Tr. R.S.S.A. 1907, p. 199.

NORTH QUEENSLAND: Cairns.

17. CLANIA VARIEGATA Snel.

Tijd. Ent. xxii, p. 114; Hmps. Moths Ind. 1, p. 291 = *layardi* Moore Lep. Ceyl. ii, p. 102 = *pryeri* Leach P.Z.S. 1888, p. 598 = *sikkima* Moore Ind. Mus. Notes ii, p. 67 = *sciogramma* Turn. Tr. R.S.S.A. 1914, p. 247.

As noted by Hampson, the neuration of this species is variable. In one example from Perth the anastomosis between veins 7 and 8 of the hindwings is present, in three from Darwin these veins are unconnected. In the latter several costal pseudoneuria are developed in the hindwings.

NORTH AUSTRALIA: Darwin, Melville I., Bathurst I., King R. Also from Archipelago, China, Ceylon, India.

18. CLANIA PERSIMILIS n.sp.

persimilis, very similar.

30 mm. Head, thorax, abdomen, and legs fuscous. Antennae blackish; pectinations 12. Forewings narrow, costa straight to two-thirds, thence arched, apex obtusely pointed. termen nearly straight; 4 and 5 stalked to beyond middle; pale fuscous; veins outlined with blackish; cilia fuscous. Hindwings with termen nearly straight; thickly scaled; pale fuscous; cilia fuscous. Very similar to *C. tenuis*, but the wings are much more thickly scaled and not translucent. In the latter species veins 4 and 5 of the forewings are stalked near their bases.

NORTH AUSTRALIA: Bathurst I. (G. F. Hill); one specimen. Type in National Museum.

6. Gen. OECETICUS Guild.

Tr. Linn. Soc. 1827, p. 375; Meyr. & Low. Tr. R.S.S.A. 1907, p. 199.

Antennae simple towards apex. Anterior tarsi with basal joint elongate (one-half). Forewings with Cu_2 running into combined anal vein, 4 and 5 stalked, 7, 8, 9 stalked; median vein forked in cell. Hindwings with 4 and 5 stalked; median vein forked in cell. Type: *O. kirbyi* from Central America.

19. OECETICUS ELONGATUS Saund.

Tr. R.S. 1847, p. 43; Meyr. & Low. Tr. R.S.S.A. 1907, p. 200.

QUEENSLAND: Brisbane, Tweed Heads, Toowoomba, Dalby. NEW SOUTH WALES: Scone, Sydney. VICTORIA: Melbourne, Beaconsfield, Birchip.

20. OECETICUS TERTIUS Templ.

Tr. E.S. 1847, p. 39 = *templetoni* Westw. P.Z.S. 1854, p. 234 = *ulias* Low. P.L.S.N.S.W. 1899, p. 83.

NORTH QUEENSLAND: Cooktown, Cairns.

7. Gen. PHASMYALEA nov.

φασμυαλεος, like phantom glass.

Antennae pectinate to apex. Anterior tarsi with basal joint elongate (one-half). Forewings with 4 and 5 stalked, 8 and 9 stalked. Hindwings with cell long (two-thirds); 5 absent. Median vein in cell not stalked in both wings.

21. PHASMYALEA PELLUCIDA n.sp.

pellucidus, transparent.

25 mm. Head and thorax fuscous. Antennae fuscous; pectinations 12. Abdomen reddish-ochreous. Legs fuscous; tarsi grey-whitish. Forewings rather narrow, dilated posteriorly, costa gently arched, apex and termen rounded; transparent and scaleless except for a slight sprinkling of minute fuscous scales in terminal area; costal edge whitish to one-third, thence fuscous; terminal veins and cilia fuscous. Hindwings with termen rounded; as forewings.

QUEENSLAND: Bunya Mts. in April (W. B. Barnard); one specimen. Type in Queensland Museum.

8. Gen. BATHROMELAS nov.

βαθρομελας, black-based.

Antennae pectinate to apex. Anterior tarsi with basal joint elongate (one-half). Forewings with 4 and 5 stalked, 7, 8, 9 stalked; median vein in cell forked. Hindwings with 4 and 5 approximated throughout; 6 and 7 remote; median vein in cell forked. Monotypical.

22. BATHROMELAS HYALOSCOPA Meyr. & Low.

Tr. R.S.S.A. 1907, p. 203.

32 mm. Head pale grey. Antennae blackish; pectinations 6. Thorax fuscous; tegulae grey. Abdomen and legs blackish. Forewings triangular, costa straight, termen rounded; transparent; a broad blackish basal fascia giving off broad costal and dorsal lines to beyond middle and a slender line on lower edge of cell; cilia fuscous. Hindwings with termen nearly straight, slightly waved; transparent; base and costal edge blackish; cilia fuscous. Unless the structural characters are noted, this species might be referred to *Hylarcta*.

QUEENSLAND: Injune. VICTORIA: Wimmera.

9. Gen. PLUTORECTIS Meyr. & Low.

Tr. R.S.S.A. 1907, p. 201.

Antennae pectinate to apex. Anterior tarsi with basal joint elongate (one-half). Forewings with 4 and 5 connate or stalked, 7 sometimes stalked with 8 and 9, which are stalked. Hindwings with 4 and 5 approximated, stalked or coincident. Median vein in cell simple in both wing. Type: *P. boisduvalii*.

23. PLUTORECTIS PANTOSEMNA Turn.

P.L.S.N.S.W. 1931, p. 342.

WEST AUSTRALIA: Lennox.

24. PLUTORECTIS MELANODES Meyr. & Low.

Tr. R.S.S.A. 1907, p. 201.

NORTH AUSTRALIA: Darwin. NORTH QUEENSLAND: Cape York, Townsville, Mackay. QUEENSLAND: Bundaberg, Brisbane, Tweed Heads, Dalby.

25. PLUTORECTIS XANTHOCHRYSA Meyr. & Low.

Tr. R.S.S.A. 1907, p. 202.

NORTH AUSTRALIA: Darwin. NEW SOUTH WALES: Jervis Bay. VICTORIA: Moe. WEST AUSTRALIA: Waroona, Perth.

26. PLUTORECTIS ZOPHOPEPLA Meyr. & Low.

Tr. R.S.S.A. 1907, p. 203.

NORTH QUEENSLAND: Cooktown, Townsville, Mackay.

27. PLUTORECTIS BOISDUVALII West.

P.Z.S. 1854, p. 232; Meyr. & Low. Tr. R.S.S.A. 1907, p. 202.

NEW SOUTH WALES: Sydney, Katoomba, Jervis Bay. SOUTH AUSTRALIA: Mt. Lofty.

28. PLUTORECTIS CROCOBATHRA n.sp.

κροκοβαθρος, with saffron base.

25 mm. Head fuscous. (Antennae missing.) Thorax orange-yellow. Abdomen fuscous. Legs ochreous; anterior pair fuscous. Forewings rather narrow, costa straight, apex and termen rounded; 4 and 5 separate, 6 and 7 connate from end of cell; pale fuscous; near base ochreous; cilia pale fuscous. Hindwings with termen strongly rounded; 4 and 5 connate; pale fuscous; cilia pale fuscous.

NORTH QUEENSLAND: Atherton in June; one specimen. Type in National Museum.

29. PLUTORECTIS FULVA n.sp.

fulvus, tawny.

28 mm. Head brownish-orange; face paler. Antennae with stalk whitish; pectinations 10, dark brown. Thorax and abdomen brownish-orange. Legs brownish-ochreous. Forewings broad, costa straight, apex and termen rounded; fuscous-brown, darker near base; cilia pale ochreous. Hindwings with termen strongly rounded; dark brown; cilia pale ochreous.

P. boisduvalii and *P. xanthochrysa* differ from this species in their blackish antennal pectinations.

NORTH AUSTRALIA: Darwin (G. H. Hill); two specimens. Type in National Museum.

30. PLUTORECTIS DYSMORPHA n.sp.

δυσμορφος, unattractive.

28 mm. Head whitish-ochreous. Antennae fuscous; pectinations 6. Thorax whitish-ochreous with central fuscous suffusion. Abdomen whitish-ochreous. Forewings elongate-triangular, costa straight to near apex, apex obtuse, termen slightly rounded, oblique; grey; dorsal area whitish-ochreous; a broad suffused fuscous bar from beneath one-third costa towards tornus; cilia fuscous. Hindwings and cilia fuscous.

NORTH QUEENSLAND: Cape York in October (W. B. Barnard); one specimen. Type in Queensland Museum.

31. PLUTORECTIS GRISEA Heyl.

Ann. Ent. Soc. Belg. xxix, p. 120; Meyr. & Low. Tr. R.S.S.A. 1907, p. 204.

QUEENSLAND: Emerald. NEW SOUTH WALES: Sydney, Broken Hill.

32. PLUTORECTIS GYMNOPHASA Low.

P.L.S.N.S.W. 1900, p. 39; Meyr. & Low. Tr. R.S.S.A. 1907, p. 204.

QUEENSLAND: Stanthorpe. NEW SOUTH WALES: Murrurundi, Sydney, Broken Hill. VICTORIA: Melbourne, Ararat, Castlemaine.

33. PLUTORECTIS PELLOCEROS Turn.

Tr. R.S.S.A. 1932, p. 188.

NORTH-WEST AUSTRALIA: Roeburne, Wyndham.

34. PLUTORECTIS LURIDA Heyl.

Ann. Soc. Ent. Belg. 1886, p. 120; Meyr. & Low. Tr. R.S.S.A. 1907, p. 204.

= *muris-olens* Luc. Tr. Nat. Hist. Soc. Q. 1894, p. 105.

NORTH QUEENSLAND: Cape York, Cairns. QUEENSLAND: Duinga. Gympie, Brisbane, Injune. VICTORIA: Warburton.

35. PLUTORECTIS CAPNAEA n.sp.

καπναιος, smoky.

22 mm. Head, thorax, abdomen, and legs blackish. Antennal pectinations 6; blackish. Forewings with costa straight to three-fourths, thence slightly arched, apex rounded, termen slightly rounded; fuscous; cilia fuscous. Hindwings with termen strongly rounded; fuscous; cilia fuscous.

VICTORIA: Mt. Buffalo, in January; one specimen. Type in National Museum.

36. PLUTORECTIS PAURA n.sp.

παυρος, small.

16 mm. Head, thorax, abdomen, and legs blackish. Antennal pectinations 8; blackish. Forewings narrow, costa slightly arched, apex rounded, termen nearly straight, oblique; rather thinly scaled; pale fuscous; cilia pale fuscous. Hindwings with termen strongly rounded; fuscous; cilia fuscous.

QUEENSLAND: Brisbane in September (F. P. Dodd); one specimen. Type in National Museum.

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